

WHAT IS CLAIMED IS:

1. An absorbent product comprising an absorbent substrate and a moisturizing and lubrication composition, said moisturizing and lubricating composition comprising from about 1% (by weight) to about 40% (by weight) of an
5 emollient, from about 1% (by weight) to about 20% (by weight) of a humectant, from about 30% (by weight) to about 90% (by weight) an immobilizing agent, and from about 1% (by weight) to about 40% (by weight) of a compatibilizing agent wherein
10 no more than about 50% (by weight) of the components are liquid at room temperature and no less than about 50% of the components are solid at room temperature, and wherein at least about 85% (by weight) of the components of the moisturizing and lubricating composition form a single phase at a temperature of from about 45°C to about 80°C.

2. The absorbent product as set forth in claim 1 wherein the emollient is selected from the group consisting of petroleum based emollients, fatty acids, fatty acid esters, vegetable oils, hydrogenated vegetable oils, alkyl
5 ethoxylates, fatty alcohols, silicones, and combinations thereof.

3. The absorbent product as set forth in claim 2 wherein the silicones are selected from the group consisting of dimethicone, dimethoconol, PEG dimethicone, alkyl silicones, phenyl silicones, silicone phospholipids, and
5 combinations thereof.

4. The absorbent product as set forth in claim 1 wherein the humectant is present in an amount of from about 5% (by weight) to about 15% (by weight).

5. The absorbent product as set forth in claim 1 wherein the humectant is selected from the group consisting of N-Acetyl ethanolamine, urocanic acid, aloe vera gel, arginine PCA, chitosan PCA, copper PCA, corn glycerides,

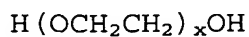
5 dimethyl imidazolidinone, fructose, glucamine, glucose,
 glucose glutamate, glucuronic acid, glutamic acid, glycereth-
 7, glycereth-12, glycereth-20, glycereth-26, glycerin, honey,
 hydrogenated honey, hydrogenated starch hydrolysates,
 hydrolyzed corn starch, lactamide MEA, lactic acid, lactose
 10 lysine PCA, mannitol, methyl gluceth-10, methyl gluceth-20,
 PCA, PEG-2 lactamide, PEG-10 propylene glycol, polyamino
 sugar condensate, potassium PCA, propylene glycol, propylene
 glycol citrate, polyamino acid, polysaccharide, saccharide
 hydrolysate, saccharide isomerate, sodium aspartate, sodium
 15 lactate, sodium PCA, sorbitol, TEA-lactate, TEA-PCA, Urea,
 Xylitol, and mixtures thereof.

6. The absorbent product as set forth in claim 1
 wherein the humectant is selected from the group consisting
 of polyols, glycerine, ethoxylated glycerine, polyethylene
 glycols, hydrogenated starch hydrolysates, propylene glycol,
 5 silicone glycol, pyrrolidone carboxylic acid, and mixtures
 thereof.

7. The absorbent product as set forth in claim 1
 wherein the humectant is glycerin.

8. The absorbent product as set forth in claim 1
 wherein the immobilizing agent is present in an amount of
 from about 40% (by weight) to about 70% (by weight).

9. The absorbent product as set forth in claim 1 wherein
 the immobilizing agent is selected from the group consisting
 of aluminum stearate, calcium stearate, magnesium stearate,
 zinc stearate, C₁₄-C₂₂ fatty alcohols, C₁₂-C₂₂ fatty acids,
 5 solid fatty acid esters, C₁₂-C₂₂ fatty alcohol ethoxylates
 having an average degree of ethoxylation ranging from about 2
 to about 30, and high molecular weight polyethylene glycols
 having the formula:



10 wherein x is the degree of ethoxylation and is an average value of at least about 20 moles.

10. The absorbent product as set forth in claim 9 wherein the polyethylene glycols are selected from the group consisting of PEG 1000, PEG 3350, PEG 6000, PEG 8000, and PEG 10,000.

11. The absorbent product as set forth in claim 9 wherein the fatty alcohol is selected from the group consisting of cetyl alcohol, cetearyl alcohol, stearyl alcohol, behenyl alcohol, and mixtures thereof.

12. The absorbent product as set forth in claim 1 wherein the compatibilizing agent is selected from the group consisting of propylene glycol, butylene glycol, 1,3 butylene glycol, low molecular weight polyethylene glycols (molecular
5 weights of less than about 720 and liquid at room temperature), methoxyisopropanol, dipropylene glycol propyl ether, dipropylene glycol butyl ether, dipropylene glycol, methyl propanediol, and soluble/dispersible polypropylene glycols, and combinations thereof.

13. The absorbent product as set forth in claim 1 wherein the moisturizing and lubricating composition further comprises a dispersing agent.

14. The absorbent product as set forth in claim 13 wherein the dispersing agent is selected from the group consisting of polyether ethoxylated/propoxylated modified polydimethylsiloxanes which are fully or partially compatible
5 with polydimethylsiloxanes, silicone polyethers having at least 30% siloxane, between 10% and 40% ethoxylation and between 0% and 40% propoxylation and combinations thereof.

15. The absorbent product as set forth in claim 1 wherein the moisturizing and lubricating composition further

comprises a skin barrier enhancing agent in an amount of from about 0.1% (by weight) to about 30% (by weight).

16. The absorbent product as set forth in claim 15 wherein the skin barrier enhancing agent is selected from the group consisting of a fat and an oil.

17. The absorbent product as set forth in claim 15 wherein the skin barrier enhancing agent is selected from the group consisting of apricot kernel oil, avocado oil, babassu oil, borage seed oil, butter, C₁₂-C₁₈ acid triglyceride, 5 camellia oil, canola oil, caprylic/capric/lauric triglyceride, caprylic/capric/linoleic triglyceride, caprylic/capric/stearic triglyceride, caprylic/capric triglyceride, carrot oil, cashew nut oil, castor oil, cherry pit oil, chia oil, cocoa butter, coconut oil, cod liver oil, 10 corn germ oil, corn oil, cottonseed oil, C₁₀-C₁₈ triglycerides, egg oil, epoxidized soybean oil, evening primrose oil, glyceryl triacetyl hydroxystearate, glyceryl triacetyl ricinoleate, glycosphingolipids, grape seed oil, hazelnut oil, human placental lipids, hybrid safflower oil, 15 hybrid sunflower seed oil, hydrogenated castor oil, hydrogenated castor oil laurate, hydrogenated coconut oil, hydrogenated cottonseed oil, hydrogenated C₁₂-C₁₈ triglycerides, hydrogenated fish oil, hydrogenated lard, hydrogenated menhaden oil, hydrogenated mink oil, 20 hydrogenated orange roughy oil, hydrogenated palm kernel oil, hydrogenated palm oil, hydrogenated peanut oil, hydrogenated shark liver oil, hydrogenated soybean oil, hydrogenated tallow, hydrogenated vegetable oil, lard, lauric/palmitic/oleic triglyceride, lesquerella oil, linseed 25 oil, macadamia nut oil, maleated soybean oil, meadowfoam seed oil, menhaden oil, mink oil, moringa oil, mortierella oil, neatsfoot oil, oleic/linoleic triglyceride, oleic/palmitic/lauric/myristic/linoleic triglyceride, oleostearine, olive husk oil, olive oil, omental lipids,

30 orange roughy oil, palm kernel oil, palm oil, peach kernel
oil, peanut oil, pengawar djambi oil, pentadesma butter,
phospholipids, pistachio nut oil, placental lipids, rapeseed
oil, rice bran oil, safflower oil, sesame oil, shark liver
oil, shea butter, soybean oil, sphingolipids, sunflower seed
35 oil, sweet almond oil, tall oil, tallow, tribehenin,
tricaprin, tricaprylin, triheptanoin,
trihydroxymethoxystearin, trihydroxystearin, triisononanoin,
triisostearin, trilaurin, trilinolein, trilinolenin,
trimyristin, trioctanoin, triolein, tripalmitin, trisebacin,
40 tristearin, triundecanoin, vegetable oil, walnut oil, wheat
bran lipids, wheat germ oil, zadoary oil, and mixtures
thereof.

18. The absorbent product as set forth in claim 15
wherein the moisturizing and lubricating composition further
comprises an antioxidant in an amount of from about 0.05% to
about 5%.

19. The absorbent product as set forth in claim 18
wherein the antioxidant is selected from the group consisting
of natural and synthetic tocopherol, butylated hydroxyanisole
(BHA), butylated hydroxytoluene (BHT), carotenoids, filtered
5 wheat germ oil, gamma oryzanol, sodium sulfite, grape seed
extract, green tea extract, rosmarinic acid, ubiquinone, lipoic
acid, N-acetyl-cysteine, avocado, sage, proanthocyanidins,
and mixtures thereof.

20. The absorbent product as set forth in claim 18
wherein the antioxidant is selected from the group consisting
of natural and synthetic tocopherol, butylated
hydroxytoluene, gamma oryzanol, and mixtures thereof.

21. The absorbent product as set forth in claim 1
wherein the moisturizing and lubricating composition further
comprises a sterol or sterol derivative in an amount of from
about 0.1% (by weight) to about 10% (by weight).

22. The absorbent product as set forth in claim 21 wherein the sterol or sterol derivative is selected from the group consisting of cholesterol sulfate, cholesterol, sitosterol, stigmasterol, ergosterol, C₁₀-C₃₀ cholesterol/lanosterol esters, cholecalciferol, cholesteryl hydroxystearate, cholesteryl isostearate, cholesteryl stearate, 7- dihydrocholesterol, dihydrocholesterol, dihydrocholesteryl octyldecanoate, dihydrolanosterol, dihydrolanosteryl octyldecanoate, ergocalciferol, tall oil sterol, soy sterol acetate, lanasterol, soy sterol, avocado sterols, cholesterol esters, sterol esters, and mixtures thereof.

23. The absorbent product as set forth in claim 1 wherein the moisturizing and lubricating composition further comprises a ceramide.

24. The absorbent product as set forth in claim 23 wherein the ceramide is glucosylceramide.

25. The absorbent product as set forth in claim 1 wherein the moisturizing and lubricating composition further comprises one or more components selected from the group consisting of emulsifiers, surfactants, water, viscosity modifiers, pH modifiers, enzyme inhibitors/inactivators, suspending agents, pigments, dyes colorants, natural moisturizing factors, buffers, perfumes, antibacterial actives, antifungal actives, antivirul actives, pharmaceutical actives, film formers, deodorants, opacifiers, astringents, solvents, organic acids, preservatives, drugs, vitamins, aloe vera, and panthenol.

26. The absorbent product as set forth in claim 1 wherein the moisturizing and lubricating composition has a melting point of from about 55°C to about 75°C.

27. The absorbent product as set forth in claim 1 wherein the moisturizing and lubricating composition has a penetration hardness of from about 1 millimeter to about 20 millimeters.

28. The absorbent product as set forth in claim 1 wherein at least about 90% (by weight) of the components of the moisturizing and lubricating composition form a single phase at a temperature of from about 45°C to about 80°C.

29. The absorbent product as set forth in claim 1 wherein at least about 94% (by weight) of the components of the moisturizing and lubricating composition form a single phase at a temperature of from about 45°C to about 80°C.

30. The absorbent product as set forth in claim 1 wherein at least about 97% (by weight) of the components of the moisturizing and lubricating composition form a single phase at a temperature of from about 45°C to about 80°C.

31. The absorbent product as set forth in claim 1 wherein the absorbent product is selected from the group consisting of diapers, feminine hygiene pads, pantliners, micro-liners, interlabial pads, thong pads, tampons, adult
5 incontinence garments, training pants and disposable swimming pants.

32. An absorbent product comprising an absorbent substrate and a moisturizing and lubrication composition comprising from about 1% (by weight) to about 40% (by weight) of a silicone, from about 1% (by weight) to about 20% (by
5 weight) of a humectant, from about 30% (by weight) to about 90% (by weight) an immobilizing agent, from about 1% (by weight) to about 40% (by weight) of a compatibilizing agent and a dispersing agent wherein no more than about 50% (by weight) of the components are liquid at room temperature and
10 no less than about 50% of the components are solid at room

temperature, and wherein at least about 85% (by weight) of the components of the moisturizing and lubricating composition form a single phase at a temperature of from about 45°C to about 80°C.

33. The absorbent product as set forth in claim 32 wherein the weight ratio of silicone to dispersing agent is at least about 1:1.

34. The absorbent product as set forth in claim 32 wherein the dispersing agent is Dow Corning 5329.

35. The absorbent product as set forth in claim 32 wherein the silicone is selected from the group consisting of dimethicone, dimethoconol, PEG dimethicone, alkyl silicones, phenyl silicones, silicone phospholipids, and combinations
5 thereof.

36. The absorbent product as set forth in claim 32 wherein the humectant is present in an amount of from about 5% (by weight) to about 15% (by weight).

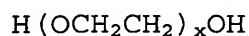
37. The absorbent product as set forth in claim 32 wherein the humectant is selected from the group consisting of N-Acetyl ethanolamine, urocanic acid, aloe vera gel, arginine PCA, chitosan PCA, copper PCA, corn glycerides,
5 dimethyl imidazolidinone, fructose, glucamine, glucose, glucose glutamate, glucuronic acid, glutamic acid, glycereth-7, glycereth-12, glycereth-20, glycereth-26, glycerin, honey, hydrogenated honey, hydrogenated starch hydrolysates, hydrolyzed corn starch, lactamide MEA, lactic acid, lactose
10 lysine PCA, mannitol, methyl gluceth-10, methyl gluceth-20, PCA, PEG-2 lactamide, PEG-10 propylene glycol, polyamino sugar condensate, potassium PCA, propylene glycol, propylene glycol citrate, polyamino acid, polysaccharide, saccharide hydrolysate, saccharide isomerate, sodium aspartate, sodium
15 lactate, sodium PCA, sorbitol, TEA-lactate, TEA-PCA, Urea, Xylitol, and mixtures thereof.

38. The absorbent product as set forth in claim 32 wherein the humectant is selected from the group consisting of polyols, glycerine, ethoxylated glycerine, polyethylene glycols, hydrogenated starch hydrolsates, propylene glycol, 5 silicone glycol, pyrrolidone carboxylic acid, and mixtures thereof.

39. The absorbent product as set forth in claim 32 wherein the humectant is glycerin.

40. The absorbent product as set forth in claim 32 wherein the immobilizing agent is present in an amount of from about 40% (by weight) to about 70% (by weight).

41. The absorbent product as set forth in claim 32 wherein the immobilizing agent is selected from the group consisting of aluminum stearate, calcium stearate, magnesium stearate, zinc stearate, C₁₄-C₂₂ fatty alcohols, C₁₂-C₂₂ fatty 5 acids, solid fatty acid esters, C₁₂-C₂₂ fatty alcohol ethoxylates having an average degree of ethoxylation ranging from about 2 to about 30, and high molecular weight polyethylene glycols having the formula:



10 Wherein x is the degree of ethoxylation and is an average value of at least about 20 moles.

42. The absorbent product as set forth in claim 41 wherein the polyethylene glycols are selected from the group consisting of PEG 1000, PEG 3350, PEG 6000, PEG 8000, and PEG 10,000.

43. The absorbent product as set forth in claim 41 wherein the fatty alcohol is selected from the group consisting of cetearyl alcohol, cetyl alcohol, stearyl alcohol, behenyl alcohol, and mixtures thereof.

44. The absorbent product as set forth in claim 32 wherein the compatibilizing agent is selected from the group consisting of propylene glycol, butylene glycol, 1,3 butylene glycol, low molecular weight polyethylene glycols (molecular
 5 weights of less than about 720 and liquid at room temperature), methoxyisopropanol, dipropylene glycol propyl ether, dipropylene glycol butyl ether, dipropylene glycol, methyl propanediol, and soluble/dispersible polypropylene glycols, and combinations thereof.

45. The absorbent product as set forth in claim 32 wherein the moisturizing and lubricating composition further comprises a skin barrier enhancing agent in an amount of from about 0.1% (by weight) to about 30% (by weight).

46. The absorbent product as set forth in claim 45 wherein the skin barrier enhancing agent is selected from the group consisting of a fat and an oil.

47. The absorbent product as set forth in claim 45 wherein the skin barrier enhancing agent is selected from the group consisting of apricot kernel oil, avocado oil, babassu oil, borage seed oil, butter, C₁₂-C₁₈ acid triglyceride,
 5 camellia oil, canola oil, caprylic/capric/lauric triglyceride, caprylic/capric/linoleic triglyceride, caprylic/capric/stearic triglyceride, caprylic/capric triglyceride, carrot oil, cashew nut oil, castor oil, cherry pit oil, chia oil, cocoa butter, coconut oil, cod liver oil,
 10 corn germ oil, corn oil, cottonseed oil, C₁₀-C₁₈ triglycerides, egg oil, epoxidized soybean oil, evening primrose oil, glyceryl triacetyl hydroxystearate, glyceryl triacetyl ricinoleate, glycosphingolipids, grape seed oil, hazelnut oil, human placental lipids, hybrid safflower oil,
 15 hybrid sunflower seed oil, hydrogenated castor oil, hydrogenated castor oil laurate, hydrogenated coconut oil, hydrogenated cottonseed oil, hydrogenated C₁₂-C₁₈

triglycerides, hydrogenated fish oil, hydrogenated lard,
hydrogenated menhaden oil, hydrogenated mink oil,
20 hydrogenated orange roughy oil, hydrogenated palm kernel oil,
hydrogenated palm oil, hydrogenated peanut oil, hydrogenated
shark liver oil, hydrogenated soybean oil, hydrogenated
tallow, hydrogenated vegetable oil, lard,
lauric/palmitic/oleic triglyceride, lesquerella oil, linseed
25 oil, macadamia nut oil, maleated soybean oil, meadowfoam seed
oil, menhaden oil, mink oil, moringa oil, mortierella oil,
neatsfoot oil, oleic/linoleic triglyceride,
oleic/palmitic/lauric/myristic/linoleic triglyceride,
oleostearine, olive husk oil, olive oil, omental lipids,
30 orange roughy oil, palm kernel oil, palm oil, peach kernel
oil, peanut oil, pengawar djambi oil, pentadesma butter,
phospholipids, pistachio nut oil, placental lipids, rapeseed
oil, rice bran oil, safflower oil, sesame oil, shark liver
oil, shea butter, soybean oil, sphingolipids, sunflower seed
35 oil, sweet almond oil, tall oil, tallow, tribehenin,
tricaprin, tricaprylin, triheptanoin,
trihydroxymethoxystearin, trihydroxystearin, triisononanoin,
triisostearin, trilaurin, trilinolein, trilinolenin,
trimyristin, trioctanoin, triolein, tripalmitin, trisebacin,
40 tristearin, triundecanoin, vegetable oil, walnut oil, wheat
bran lipids, wheat germ oil, zadoary oil, and mixtures
thereof.

48. The absorbent product as set forth in claim 45
wherein the moisturizing and lubricating composition further
comprises an antioxidant in an amount of from about 0.05% to
about 5%.

49. The absorbent product as set forth in claim 48
wherein the antioxidant is selected from the group consisting
of natural and synthetic tocopherol, butylated hydroxyanisole
(BHA), butylated hydroxytoluene (BHT), carotenoids, filtered
5 wheat germ oil, gamma oryzanol, sodium sulfite, grape seed

extract, green tea extract, rosmarinic acid, ubiquinone, lipoic acid, N-acetyl-cysteine, avocado, sage, proanthrocyanidins, and mixtures thereof.

50. The absorbent product as set forth in claim 48 wherein the antioxidant is selected from the group consisting of natural and synthetic tocopherol, butylated hydroxytoluene, gamma oryzanol, and mixtures thereof.

51. The absorbent product as set forth in claim 32 wherein the moisturizing and lubricating composition further comprises a sterol or sterol derivative in an amount of from about 0.1% (by weight) to about 10% (by weight).

52. The absorbent product as set forth in claim 51 wherein the sterol or sterol derivative is selected from the group consisting of cholesterol sulfate, cholesterol, sitosterol, stigmasterol, ergosterol, C₁₀-C₃₀ cholesterol/lanosterol esters, cholecalciferol, cholesteryl hydroxystearate, cholesteryl isostearate, cholesteryl stearate, 7- dihydrocholesterol, dihydrocholesterol, dihydrocholesteryl octyldecanoate, dihydrolanosterol, dihydrolanosteryl octyldecanoate, ergocalciferol, tall oil sterol, soy sterol acetate, lanasterol, soy sterol, avocado sterols, cholesterol esters, sterol esters, and mixtures thereof.

53. The absorbent product as set forth in claim 32 wherein the moisturizing and lubricating composition further comprises one or more components selected from the group consisting of emulsifiers, surfactants, water, viscosity modifiers, natural moisturizing factors, antiviral actives, pH modifiers, enzyme inhibitors/inactivators, suspending agents, pigments, dyes, colorants, buffers, perfumes, antibacterial actives, antifungal actives, pharmaceutical actives, film formers, deodorants, opacifiers, astringents,

10 solvents, organic acids, preservatives, drugs, vitamins, aloe vera, and panthenol.

54. The absorbent product as set forth in claim 32 wherein the moisturizing and lubricating composition has a melting point of from about 55°C to about 75°C.

55. The absorbent product as set forth in claim 32 wherein the moisturizing and lubricating composition has a penetration hardness of from about 1 millimeter to about 20 millimeters.

56. The absorbent product as set forth in claim 32 further comprising a ceramide.

57. The absorbent product as set forth in claim 56 wherein the ceramide is glucosylceramide.

58. The absorbent product as set forth in claim 32 wherein at least about 90% (by weight) of the components of the moisturizing and lubricating composition form a single phase at a temperature of from about 45°C to about 80°C.

59. The absorbent product as set forth in claim 32 wherein at least about 94% (by weight) of the components of the moisturizing and lubricating composition form a single phase at a temperature of from about 45°C to about 80°C.

60. The absorbent product as set forth in claim 32 wherein at least about 97% (by weight) of the components of the moisturizing and lubricating composition form a single phase at a temperature of from about 45°C to about 80°C.

61. The absorbent product as set forth in claim 32 wherein the absorbent product is selected from the group consisting of diapers, feminine hygiene pads, pantliners, micro-liners, interlabial pads, thong pads, tampons, adult
5 incontinence garments, training pants and disposable swimming pants.